

SECOR INTERNATIONAL INCORPORATED

June 18, 2005

Ms. Colleen Stone California Regional Water Quality Control Board North Coast Region 5550 Skylane Boulevard, Suite A Santa Rosa, CA 95403-1072

RE: Quarterly Summary and Monitoring Report - First Quarter 2005

SECOR Project No.: 77CP.60009.01.0220

Dear Ms. Stone:

On behalf of ConocoPhillips, SECOR International Incorporated (SECOR) is forwarding the quarterly summary report for the following location:

### **Service Station**

### Location

Former Bulk Plant No. 0220

720 North Franklin Street Fort Bragg, California

Sincerely,

SECOR International Incorporated

Thomas M. Potter Project Scientist

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Attachments: SECOR's Quarterly Summary Report dated April 14, 2005

Attachment 1 - TRC Quarterly Monitoring Report January through March,

2005 dated April 5, 2005

cc: Mr. Thomas Kosel, ConocoPhillips

### QUARTERLY SUMMARY REPORT First Quarter 2005

Former Bulk Plant No. 0220 720 North Franklin Street Fort Bragg, California

City/County ID #:

Fort Bragg

County:

<u>Mendocino</u>

#### PREVIOUS ASSESSMENT

The site is located near the north end of the City of Fort Bragg at the corner of Franklin and Spruce Streets. Pudding Creak is located approximately 1,200 feet north of the site, and the Pacific Ocean is located approximately 2,400 feet west of the site. The facility was built in 1924 and currently consists of a storehouse, an office, a drum storage and filling area, five above ground storage tanks (AST's), a pump area, and loading racks. Former components of the facility included two 550-gallon underground spill contaminant tanks (SCT's) used to collect overflow spillage and overflow spillage with waste oil respectively, and a pump area. Product was historically supplied to the bulk plant by rail and for the past 30 years by truck. There are two separate unloading racks; one was to service rail cars (currently not in use) and the other to service trucks. Both the train and truck unloading racks serviced the bulk storage AST's and loading rack via underground pipelines. The tank farm has a capacity of 85,000 gallons of storage with four 20,000-gallon AST's and one 5,000-gallon AST.

In September 1988 Kaprealian Engineering Incorporated (KEI) conducted a preliminary site investigation that included the installation six borings for soil and groundwater sampling (EB-1 through EB-6). The borings were advanced to a total depth ranging from 17 to 19 feet bgs. Total petroleum hydrocarbons with gasoline distinction (TPHg) and total petroleum hydrocarbons with diesel distinction (TPHd) were detected in soil and groundwater at concentrations ranging from 80 milligrams per kilogram (mg/kg) to 340 mg/kg respectively.

On January 23, 1989, KEI oversaw the installation of four monitoring wells (MW-1 through MW-4) at the site. The wells were installed at depths ranging from 20 to 25.5 feet bgs. Groundwater was encountered at depths ranging from 10.5 to 14 feet bgs. All soil samples taken from the monitoring wells recorded non detectable concentrations of TPHg, TPHd, and benzene, toluene, ethyl-benzene and total xylenes (collectively BTEX) except the ten foot sample from MW-4 which recorded a concentration of 790 milligrams per kilogram (mg/kg) of TPHg. Groundwater samples taken from the wells contained concentrations of benzene ranging from 4.1 to 87 micrograms per liter (ug/L), concentrations of TPHg ranging from 2800 to 8800 ug/L, and concentrations of TPHd ranging from 1900 to 160,000 ug/L.

On March 29, 1989, KEI oversaw the installation of five additional monitoring wells (MW-5 through MW-9) at the site. The wells were installed at depths ranging from 18 to 20 feet bgs. Groundwater was encountered at depths ranging from 9 to 15.5 feet bgs. Soil

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samples from the borings were analyzed for TPHg, TPHd, and BTEX. TPHg was found in the 10-foot sample from MW-5 at a concentration of 1.1 mg/kg. TPHd was detected in soil from MW-6 at a concentration of 400 mg/kg.

On July 26, 1989, KEI oversaw the installation of two additional monitoring wells (MW-10 and MW-11) at the site. The wells were installed at depths ranging from 19 to 20 feet bgs. Soil samples from the borings were analyzed for TPHg, TPHd, and BTEX. TPHg and TPHd were found in the 13-foot sample from MW-11 at concentrations of 31 mg/kg and 120 mg/kg respectively. Groundwater samples taken from the MW-10 and MW-11 contained TPHd at concentrations of 180 ug/L and 540 ug/L respectively.

On September 1, 1995, KEI oversaw the installation of one additional groundwater monitoring well (MW-12) at the site. The well was installed at a depth of 19 feet bgs. Soil samples from the borings were analyzed for TPHg, TPHd, and BTEX. All soils recorded non-detectable concentrations of all analytes. Groundwater samples taken from the well contained TPHg, TPHd, benzene, toluene, and ethylbenzene at concentrations of 430 ug/L, 220 ug/L, 7.2 ug/L, 51 ug/L, and 12 ug/L respectively.

In December 1996, KEI oversaw the removal of two 550 gallon spill containment tanks. During the excavation KEI conducted a limited excavation around the vicinity of the tanks.

In February 1997, Pacific Environmental Group (PEG) conducted a Phase I site assessment of the site. To follow up with this assessment, on September 25, 2997, PEG oversaw the advancement of five soil borings (SB-1 through SB-4 and HB-1). The borings were advanced to depths ranging from 17.7 to 35 feet bgs. Soil samples analyzed from HB-1, SB-1, and SB-4 contained relatively low concentrations of TPHg and TPHd. The highest concentration of TPHg (37 mg/kg) and TPHd (28 mg/kg) were seen in the five-foot sample taken from SB-1.

In February 1998, the quarterly monitoring activities at the site were taken over by Gettler-Ryan (GRI).

In September 1998, SHN Consulting Engineers & Geologists Inc. (SHN) prepared an interim corrective action plan (IRAP) for the site. In the IRAP, SHN recommended the installation of a supplemental oxygen source to enhance bioremediation processes at the site.

On April 12, 1999 SHN performed an additional subsurface investigation at the site. During the investigation, ten soil borings (SB-101 through SB-110) were advanced and abandoned, aquifer slug tests were performed on existing groundwater monitoring wells, and petroleum hydrocarbon fingerprinting was performed on the groundwater from the site. Based on the results of these three tests, SHN recommended the installation of a biosparge system.

During May and June, 2000 SHN supervised the installation of one bioventing test well, two biosparge wells, and three bioventing observations wells. A bioventing pilot test and a biosparge pilot test were conducted to determine the effectiveness of each method for site remediation. Based on the results of the pilot tests, the anticipated radius of influence for a bioventing system is 30 feet per well.

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On December 5, 2002, SHN recommended the installation of 7 additional bioventing wells and 20 additional ozone sparge points at the site.

On October 8 and 9, 2003 SHN oversaw the installation of biovent wells (BV-2 through BV-8).

On October 7 through 10, 2004, SHN oversaw the installation of 20 ozone sparge wells (SP-1 through SP-20). Soil samples were analyzed from all the borings. The highest concentrations of hydrocarbons were found in soils taken from SP-7 and SP-18.

#### SENSITIVE RECEPTORS

A sensitive receptor survey has not been performed at this site. However, according to Geotracker, one inactive public water well, located at 1111 North Main Street, has been identified. The well is approximately 0.9 miles from the site located in the vicinity of a motel.

#### MONITORING AND SAMPLING

Groundwater monitoring and sampling has been performed at the site since 1989. The current groundwater monitoring well network consists of six onsite wells (MW-1 through MW-4, MW-6 and MW-7) and five offsite wells (MW-8 through MW-12) located in Spruce Street and Franklin Street that are sampled semi annually and/or quarterly. Groundwater samples collected from each well were analyzed for total purgeable petroleum hydrocarbons (TPPH), TPHd, benzene, toluene, ethyl-benzene and total xylenes (collectively BTEX), and MtBE by Environmental Protection Agency (EPA) Method 8260B.

### REMEDIAL STATUS

The ozone system is currently inoperable and is in the process of being revamped. In order to get the system running, new pressure gauges need to be installed downstream of the ball valves at each sparge line. Furthermore, an additional air tank needs to be added to the system to prolong the life of the compressor. SHN plans to complete this work during the second quarter of 2005.

#### **CHARACTERIZATION STATUS**

This quarter, groundwater taken from monitoring well, MW-8, exhibited maximum concentrations of TPPH and TPHd at 9,900 ug/L and 11,000 ug/L respectively. All other analytes recorded concentrations that were non-detectible at or above the laboratory detection limits. These values are consistent with recent stable trends.

MtBE has been detected both in on site and offsite wells. Generally, detection is sporadic, at low concentrations, and limited to onsite wells MW-1 and MW-2 and offsite wells MW-8 through MW-12. Recently, the highest recorded concentrations of MtBE in these wells occurred in February, 2004 where MW-8 reported a concentration of 310 ug/L. Since that time, MtBE concentrations in all the wells has declined steadily.

Hydrocarbons in shallow groundwater have been detected in wells MW-1, MW-3, MW-4, MW-6, MW-8, and MW-11. All of these wells which are located in the vicinity of the above ground storage tanks (ASTs). The extent of dissolved petroleum hydrocarbons in shallow groundwater is defined downgradient (northwest) and partially cross-gradient (east-west but not north-south) of the site; but has not been defined upgradient (southeast of well MW-4).

#### **WASTE DISPOSAL**

The volume of purged groundwater generated and disposed during the quarterly groundwater monitoring event is documented in TRC's Quarterly *Monitoring Report*, *January Through March 2005* dated February 28, 2005 (Attachment 1).

### RECENT SUBMITTALS / CORRESPONDENCE

There have not been any submittals or correspondences this quarter.

#### DISCUSSION

During the first quarter 2005, depth to groundwater in the twelve site wells ranged from approximately 7.95 feet to 12.29 feet bgs, which is consistent with historical levels that have ranged between depths of 5.34 feet and 16.56 feet bgs. Groundwater elevations in the site wells this quarter ranged from approximately 63.20 feet above mean sea level (MSL) to 68.97 feet above MSL. Groundwater flow beneath the site during the first quarter 2005 was northwesterly at a hydraulic gradient of 0.02 ft/ft, which is consistent with the historical groundwater flow direction and hydraulic gradient beneath the site. A regional groundwater elevation contour map was prepared by TRC using monitoring data collected on February 3, 2005, and is presented in Attachment 1.

The dissolved plume within the shallow zone continues to be centered around the former ASTs located on the north edge of the property. The heart of the plume is centered at MW-8 and MW-4. Concentrations of TPHg, TPHd, BTEX, and MtBE were consistent with historical levels this quarter. The dissolved plume remained defined downgradient and cross-gradient by non-detectable or very low concentrations of petroleum hydrocarbons and fuel oxygenates in well MW-12 to the northwest, well MW-10 (except TPHd sampled on 11/10/04) to the west, and MW-7 to the southeast, and MW-6 (except TPHd and minor concentrations of TPPH) to the south.

The highest concentrations of petroleum hydrocarbons were detected in well MW-8. During the first quarter 2005, the well reported site maximum concentrations of TPPH (9,900 ug/L) and TPHd (11,000 ug/L). These concentrations are consistent with historical values. MtBE was not detected in any wells during this period.

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# THIS QUARTER ACTIVITIES (First Quarter 2005)

- 1. Groundwater monitoring and sampling performed by TRC.
- 2. Operations and Maintenance performed by SHN.

# **NEXT QUARTER ACTIVITIES (Second Quarter 2005)**

- 1. Groundwater monitoring and sampling will be performed by TRC.
- 2. SHN will install an additional air tank and pressure gauges.

# ATTACHMENT 1 TRC'S QUARTERLY MONITORING REPORT, JANUARY THROUGH MARCH 2005, DATED FEBRUARY 28, 2005

Former Bulk Plant No. 0220 720 North Franklin Street Fort Bragg, California